

NOTES ON TEXAS SEASIDE SPARROWS

BY LUDLOW GRISCOM

IN 1944 I published a "Second Revision" of the Seaside Sparrows, *Ammospiza maritima*, which was primarily a study of Gulf Coast variations based on superb material assembled by George H. Lowery, Jr., at Baton Rouge. I was in no position at that time to make a critical study of the birds of the Texas coast then assumed to be *sennetti* Allen, and my few notes were prefaced with the remark that our knowledge of *sennetti* "really lags behind that of any other subspecies at the moment."

In January 1946 Dr. Max M. Peet offered me the opportunity to examine his series of *Ammospiza maritima* from the Texas coast, collected by H. H. Kimball. No less than 68 of this series come from localities other than the type locality (Corpus Christi, Nueces Bay), and the degree of individual variation in 65 specimens, all presumably from Matagorda (on the north arm of Matagorda Bay near the mouth of the Colorado River), is as great as that shown by *fisheri* on the coast of Louisiana (Griscom, 1944). Additional specimens from the Museum of Comparative Zoology and a kind loan, through the courtesy of Dr. John T. Zimmer, of 32 specimens from the American Museum of Natural History result in a grand total of 180 specimens from the coast of Texas from Galveston Bay southward, including every locality of record. They prove that the present systematic concept of *sennetti*, as well as the present definitions of the ranges of *sennetti* and *fisheri*, requires substantial revision.

Historically, systematically, and nomenclaturally, the characters of *sennetti* are those shown by a large series from the vicinity of Corpus Christi, the type locality; a total of 80 before me were collected from 1891 (F. M. Chapman) to 1935, between early October and early June (all birds collected after early April are more or less badly worn). It appears that all published diagnoses of this subspecies are correctly based on the characters displayed by the great majority of this series. The series shows a minor variation already described (Griscom, 1944: 323): two thirds have a grayer tone above; one third are more olivaceous. But it is the extreme variations in the series which are of particular interest:

1. Slightly darker above, that is, *browner*; dusky crown stripes more distinct; dusky and white streaking on back more distinct; chest band deeper in color and more distinct.
 - 1a. One extreme specimen (M.C.Z., Thayer Collection No. 14747).
 - 1b. Nine other specimens, not so extreme.
2. Normal (average), either grayish or olivaceous above—61 specimens.

3. Extremely pale and gray above—7 specimens.
4. Extremely olive and yellow above—2 specimens (La. State Univ. Mus. Zool. See Griscom, 1944:323).

The darker extreme of Variation 1 could be interpreted as the predicted "dark phase" of *sennetti* (Griscom, 1944:323), although the degree of difference between the dark and light phases would be very much less than in any other subspecies of *maritima* in which two definite phases have been described.

Actually my prediction of a dark phase in *sennetti* proves correct and raises a point of some historical interest. In 1891 F. M. Chapman went to Corpus Christi and was guided by J. M. Priour to the head

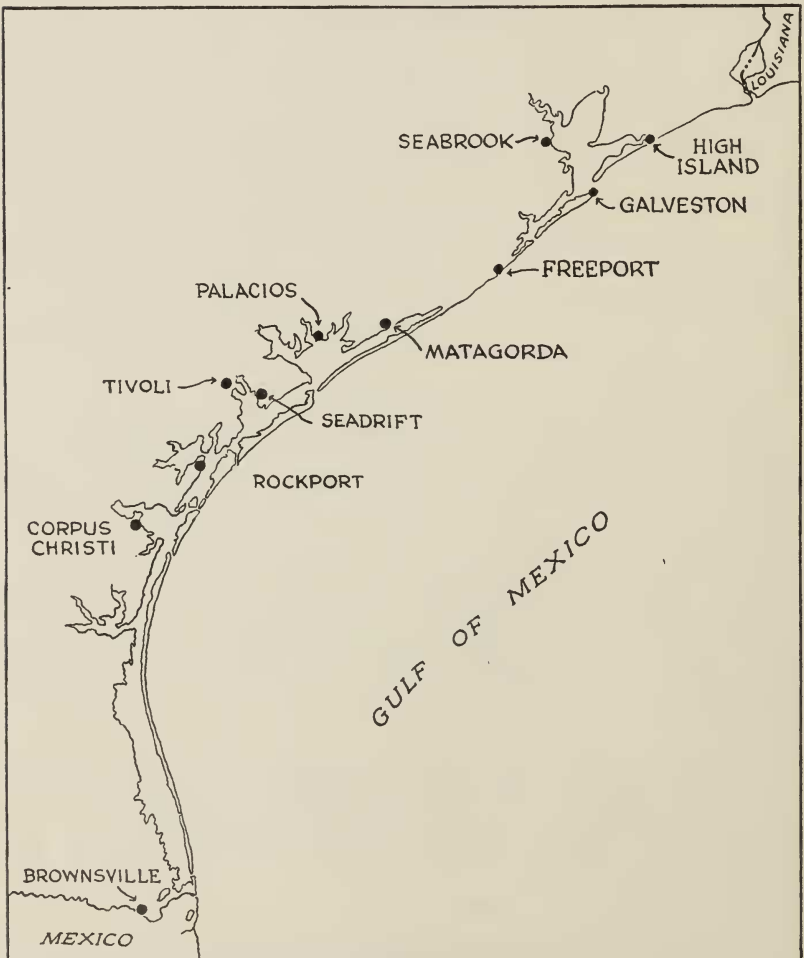


Figure 1. Sketch map of the Texas coast.

of Nueces Bay. Here, in a marsh near the mainland end of the "Aranzas Railway trestle," he collected two dark birds and saw three others, noting especially that no typical *sennetti* were present in that particular locality, although he found them common in other marshes of Nueces Bay. He recorded the dark birds (1891:324) as "*peninsulae?*", but actually they are indistinguishable from light phase *fisheri*, a race not described until 1899. Chapman was inclined to suppose that the dark birds were migrants, but Priour insisted that such dark birds were resident throughout the year, and later, when Chapman described *fisheri*, he gave *sennetti* full specific rank. Griscom and Nichols (1920:24) recorded these dark specimens as *fisheri* and assumed that they were migrants.

Rhoads (1892:98-99) made a trip to Corpus Christi in late May 1891 and was guided by Priour to the same localities where Chapman had collected. Rhoads explicitly states (p. 112) that they made every effort to find some dark Seaside Sparrows but without success. The fact is that for the next 45 years, Seaside Sparrows were collected in Nueces Bay in fall, winter, and spring without other dark birds turning up, with one supposed exception: a specimen (U.S.N.M.) collected by F. B. Armstrong on March 19, 1899.

As I see it, only two inferences are possible from this meager evidence. If Priour was wrong, we have to explain why *fisheri* used to migrate to Nueces Bay, Texas, and now no longer does so. If Priour was right, a dark phase of *sennetti* formerly existed there and has now died out. Evidence to be presented from other coastal localities north of Nueces Bay will give preponderance to the second inference. Moreover, we must recall in this connection that *fisheri* is now proved to be a permanent resident at all localities of record in Louisiana and Texas.

The Texas series of specimens is best described by working north and east up the coast, commenting on the characters possessed by specimens from each locality of record. Crossing Nueces Bay (1) and proceeding northward we come to the Rockport peninsula, bounding Copano Bay on the east.

2. Rockport. Two specimens—typical *sennetti*. (The patches of marsh are scarce and scant, and the majority have been destroyed by civilization in the past 25 years. The Seaside Sparrow is nearly extinct locally.)

3a. Seadrift, head of San Antonio Bay on the east side. Two specimens—minutely browner than typical *sennetti*.

3b. Tivoli, head of western arm of San Antonio Bay. Six specimens (A.M.N.H.), collected in *mid summer*, are of vital importance. Two are juveniles of no use systematically. But of the four adults, three are clearly normal (light phase) *fisheri*, and one is *sennetti* but

minutely browner than typical *sennetti*. All are obviously worn, breeding adults; it is impossible to claim that the specimens of *fisheri* were migrants. Both types of coloration were taken at the *same place* on the *same day*, hence we have here the same type of evidence as that furnished by George H. Lowery, Jr., for Louisiana, which proved the existence of two color phases in *fisheri*.

4. Palacios, middle of Matagorda Bay. One specimen—obviously browner than typical *sennetti*.

5. Matagorda, on the north arm of the Bay at the mouth of the Colorado River. A great series in Dr. Peet's collection (although the data on some are questionable) breaks up as follows:

- a. 14 are the normal dark phase of *fisheri*.
- b. 32 are the intermediate phase of *fisheri*.
- c. 12 are the normal pale phase of *fisheri*.
- d. 5 are the extreme pale phase of *fisheri*.
- e. 2 resemble *sennetti* but are obviously browner.

I hasten to add that I do not wish to be held to the exact numbers in the first four categories. On four occasions in the last year, after a good interval, I sorted the birds into these four categories, never reaching the same results twice. Actually the series is sufficiently large, so that one extreme passes into the other extreme by a perfect gradation.

6. Freeport, Brazoria County, at the mouth of the Brazos River. Three specimens—*fisheri* in the intermediate phase.

7. Seabrook, on the west side of Galveston Bay. Two specimens—*fisheri*, intermediate and pale phase respectively.

8. High Island, on the east side of Galveston Bay. A fine series (A.M.N.H., Dwight Collection) is *fisheri* in the light phase. These birds have always been called *fisheri*, and for many years this locality has marked the southernmost, or westernmost, limit of this subspecies.

The evidence submitted above can be summed up in the following generalizations:

1. Typical *sennetti* is unknown north of Rockport, Copano Bay.
2. An overwhelming majority of Seaside Sparrows from San Antonio Bay (Seadrift) northward are indistinguishable from *fisheri*.
3. The existence of a dark and light phase of *sennetti* is proved.
4. The light phase is apparently very rare northward of Rockport, Copano Bay; the dark phase is very rare or extinct southward.

5. Actually, "typical" *sennetti* of current textbooks and descriptions is an extreme development of the light phase.
6. The few birds of the *sennetti* type from San Antonio Bay (Seadrift) northward are surprisingly alike, being darker (*browner*) than typical *sennetti*. Actually, however, they are inseparable from certain extremes of toprotypical *sennetti* described above as Variation 1, and also inseparable from certain extremes of the light phase of *fisheri*, notably reference specimen La. State Univ. Mus. Zool. No. 6162 (see Griscom, 1944:319), thus establishing an interesting type of intergradation by individual variation.

The question now arises, how are these facts to be expressed systematically and taxonomically? An interesting letter received from Dr. Peet suggests that since the very great majority of specimens from the Texas coast south to Seadrift, San Antonio Bay, are indistinguishable from *fisheri*, they must be named *fisheri*. With this reasoning I heartily agree. Since the few specimens of the "*sennetti* type" from north of Seadrift are inseparable from extremes of *fisheri* from Louisiana, no violence is done in naming them *fisheri* also. I therefore formally propose that:

1. The range of *fisheri* be extended south to San Antonio Bay (Seadrift), Texas.
2. The range of *sennetti* be defined as "Restricted to Nueces and Copano Bays, coast of Texas."

The only taxonomic difficulty that arises is how to name the few dark birds in existence from Nueces Bay which are indistinguishable from *fisheri*. The problem can be finally settled only by competent field work in the breeding season at Nueces Bay. In the meantime, protagonists of the migration or storm waif theories, who would call dark birds from Nueces Bay *fisheri*, and light birds from farther north *sennetti*, can reflect on the fact that both types breed at Tivoli, the exact halfway spot.

It should be noted that Brownsville is dropped from the range of *sennetti*. I was originally responsible for this extension of range (1926. *Auk*, 43:24). It was based on four specimens collected in November 1909 by J. M. Priour at "Brownsville," purchased by Dr. L. B. Bishop from F. B. Armstrong. Actually, the original labels had been removed, Priour never collected at Brownsville, and Armstrong bought the balance of Priour's collection after his death. Armstrong is well known to have labeled "Brownsville" everything from Corpus Christi to Tamulipas, and both Priour and he made out series of tags ahead of time. Thirty years of field work and search have failed to discover a breeding colony of Seaside Sparrows south of Nueces Bay. If any form of

the species has ever occurred near the Mexican border, it must have been a straggler on migration. I am much obliged to Mr. A. J. Duval, of the Fish and Wildlife Service, and to Drs. Herbert Friedmann and Peet for assistance in tracing the history of these specimens.

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